



Ciba Specialty Chemicals

Additives

Polymer Additives

Ciba



Ciba® IRGAFOS® 168

Hydrolytically Stable Phosphite Processing Stabilizer

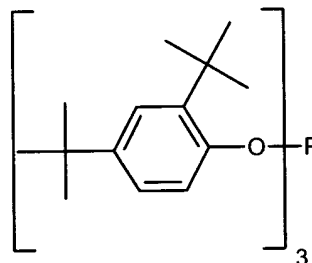
Characterization IRGAFOS 168 is a hydrolytically stable phosphite processing stabilizer. As a secondary antioxidant, IRGAFOS 168 reacts during processing with hydroperoxides formed by autoxidation of polymers preventing process induced degradation and extending the performance of primary antioxidants.

Chemical Name Tris(2,4-ditert-butylphenyl)phosphite.

CAS Number 31570-04-4

Structure IRGAFOS 168

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Molecular weight 646.9

Application The application range of IRGAFOS 168 -synergistically combined with other Ciba antioxidants - comprises polyolefins and olefin-copolymers such as polyethylene (e.g. HDPE, LLDPE), polypropylene, polybutene and ethylene-vinylacetate copolymers as well as polycarbonates and polyamides. The blends can also be used in polyesters, styrene homo- and copolymers, adhesives and natural and synthetic tackifier resins, elastomers such as BR, SEBS, SBS, and other organic substrates. IRGAFOS 168 blends can be used in combination with light stabilizers of the TINUVIN and CHIMASSORB range.

Guidelines for Use Typically 500 - 2000 ppm of IRGAFOS 168 combined with appropriate levels of other additives are used for the processing stabilization of polymers. The optimum level is application specific. Extensive performance data of IRGAFOS 168 combinations in various organic polymers and applications are available upon request.

Features/Benefits IRGAFOS 168 is an organophosphite of low volatility and is particularly resistant to hydrolysis. It protects polymers which are prone to oxidation, during the processing steps (compounding/ pelletizing, fabrication and recycling) from molecular weight change (e.g. chain scission/crosslinking) and prevents discoloration.

IRGAFOS 168 performs best when combined with other Ciba antioxidants. Blends of IRGAFOS 168 with antioxidants of the Irganox range (IRGANOX B-blends) and with antioxidants and Lactone HP-136 (IRGANOX HP products) are particularly effective. The



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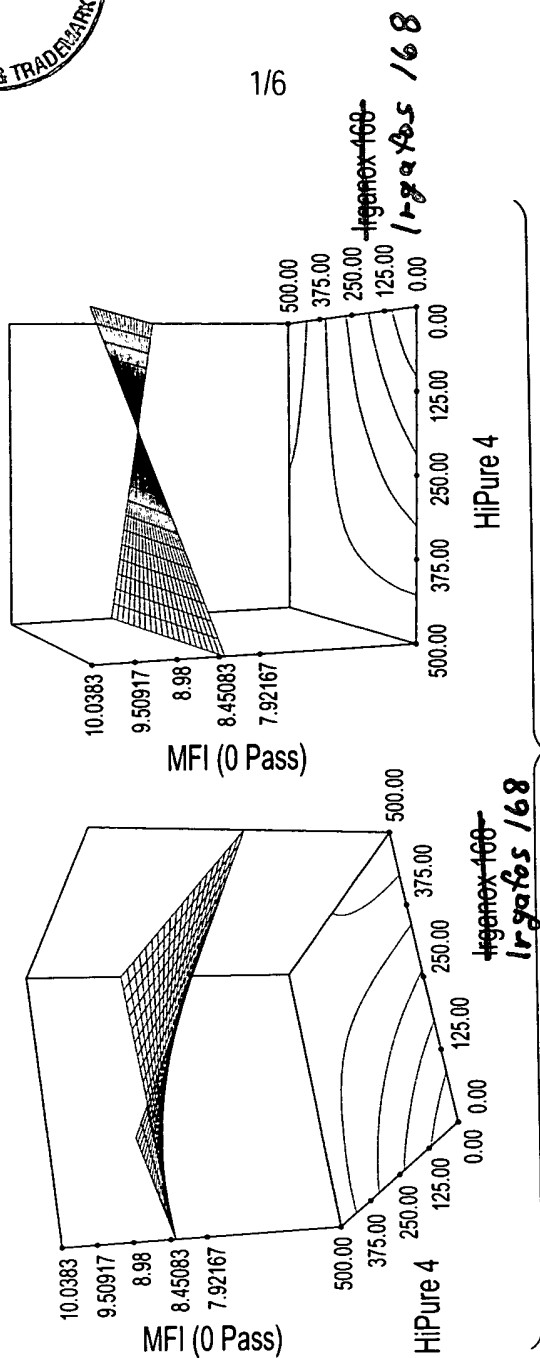


FIG. 1



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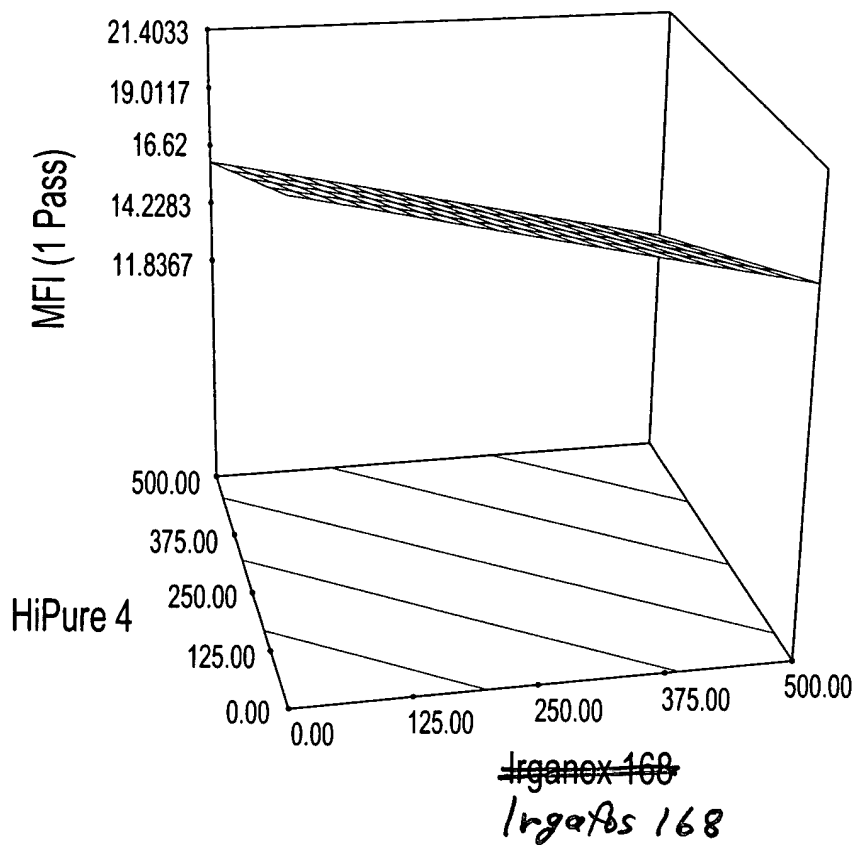


FIG. 2